

PREPARATION OF PHOSPHORUS-CONTAINING COMPOUNDS  
USEFUL IN THE PREPARATION OF BIPHOSPHINE LIGANDS

ABSTRACT OF THE DISCLOSURE

This invention relates to processes for making phosphorus compounds  $R_2P-X-PR_2$ ,  $R_2P-M$ ,  $R_2P-L$  and  $R_3P$ , and the novel cation  $R_2P^+(L)-X-P^+(L)R_2$ , where R represents an optionally substituted hydrocarbyl group, X represents a bridging group, L represents a leaving group and M represents an alkali metal atom. The invention relates further to a process for making a compound  $R_2P-L$  from a compound R-H via a new process for making the compound R-Li followed by its reaction with a compound  $Hal_2P-L$ . The compound  $R_2P-X-PR_2$  is a ligand suitable for making catalysts for copolymerizing carbon monoxide and a olefinically unsaturated compound.